

Notice of Allowability

Application No.

10/091,406

Examiner

Hung H. Lam

Applicant(s)

TAKAHASHI ET AL.

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on 12/22/05.
2. ☒ The allowed claim(s) is/are 1,4,19,5,3,20,7,10,21,11,9,22,13,16,23,17,15 and 24 (Claims are renumber as 1-18 respectively).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

1. In view of the Applicant's amendment to claims 19-24, the objection to the specifications is hereby withdrawn.

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

IN THE CLAIMS:

Regarding **claim 21**, the dots on page 17, lines 16-17 --"generate a sequential scan image signal in response to a sequential scan mode selection signal, said sequential scan..."-- have been removed.

Page 18, lines 16-17 -- "a first output portion which outputs the regulated interlace scan image signal in said interlace scan mode; and" -- has been changed to read as " a first output portion which outputs the regulated interlace scan image signal in said interlace scan mode;"

Regarding **claim 22**, the dots in page 19, lines 11 and 19 --"image signal, and synchronizing each of odd lines...sequential scan image signal to provided a first regulated sequential scan..."-- have been removed.

Allowable Subject Matter

3. Claims 1,3-5,7,9-11,13,15-17 and 19-24 are allowed.
4. The following is an examiner's statement of reasons for allowance:

The prior art of record fails to teach or fairly suggest:

Please refer to the previous office action for reasons for allowance.

Regarding claim 21 the prior art of record neither anticipates nor renders obvious, "an imager, for use in a video cameras which supports at least an interlace scan mode and a sequential scan modes the imager comprising:

a CCD portion which generates an interlace scan image signal in response to an interlace scan mode selection signal, and generates a sequential scan image signal in response to a sequential scan mode selection signals, said sequential scan image signal having $2N$ lines composed of odd lines and even lines, where N is the number of scan lines of an image to be obtained;

a synchronizer which synchronizes each pair of odd and even lines of the sequential scan image signal to produce a synchronized odd and even lines of the sequential scan image signal;

a regulator which does ordinary image regulations for said synchronized odd and even lines of the sequential scan image signal to provide a first regulated sequential scan

image signal of odd lines and a second regulated sequential scan image signal of even lines, and does the ordinary image regulations for said interlace scan image signal to provide a regulated interlace scan image signal;

a first generator responsive to said sequential scan mode selection signals, which generates a new sequential scan image signal from said first and second regulated sequential scan image signals, which are composed of regulated odd and even line signals in the sequential scan mode;

an adder which adds said first and second regulated sequential scan image signals together in response to said sequential scan mode selection signal to generate a new interlace scan image signal;

a first output portion which outputs the regulated interlace scan image signal in said interlace scan mode;

a second output portion which outputs said new sequential scan image signal in said sequential scan mode; and

a third output portion which outputs said new interlace scan image signal in said sequential scan mode.”

Regarding claim 22 the prior art of record neither anticipates nor renders obvious, “an imager for use in a video camera which supports at least a dynamic range-widening scan mode and a sequential scan mode, the imager comprising:

a CCD portion which generates a dynamic range-widening scan image signal of $2N$ lines in response to a WS mode selection signal, and generating a sequential scan image signal in

response to a sequential scan mode selection signal, N being the number of scan lines of an image to be obtained, every other line of said dynamic range-widening scan image signal being exposed longer than adjacent lines of said dynamic range-widening scan image signal, said sequential scan image signal having $2N$ lines composed of odd lines and even lines;

a synchronizer which synchronizes each pair of odd and even lines of the sequential scan image signal, and synchronizing each of odd lines of said dynamic range-widening scan image signal with a corresponding even line of said dynamic range-widening scan image signal to provide a first synchronized dynamic range-widening scan image signal of odd lines and a second synchronized dynamic range-widening scan image signals of even lines;

a first generator which generates a dynamic range-widened image signal from said first and second synchronized dynamic range-widening scan image signals in said dynamic range-widening scan mode;

a regulator which does ordinary image regulations for said odd and even lines of the sequential scan image signal to provide a first regulated sequential scan image signal of odd lines and a second regulated sequential scan image signal of even lines, and does the ordinary image regulation for said dynamic range-widened image signal to provide a dynamic range-widening image signals;

a second generator, responsive to said sequential scan mode selection signal, which generates a new sequential scan image signal from said first and second regulated sequential scan image signals, which are composed of regulated odd and even line signal in the sequential scan mode;

an adder which adds said first and second regulated sequential scan image signals together in response to said sequential scan mode selection signal to generate a new interlace scan image signal;

a first output portion which outputs the regulated dynamic range-widened image signal in said dynamic range widening scan mode;

a second output portion which outputs said new sequential scan image signal in said sequential scan mode; and

a third output portion which outputs said new interlace scan image signal in said sequential scan mode.”

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung H. Lam whose telephone number is 571-272-7367. The examiner can normally be reached on Monday - Friday 8AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on 571-272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HL

01/20/06

A handwritten signature in black ink, appearing to read 'David Ometz', with a long horizontal stroke extending to the right.

DAVID OMETZ
SUPERVISORY PATENT EXAMINER